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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,099	03/18/2004	Yuzuru Otsuka	11-235	5290

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EXAMINER	
JAGAN, MIRELLYS	
ART UNIT	**PAPER NUMBER**
2859	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,099	OTSUKA, YUZURU	
	Examiner	Art Unit	
	Mirellys Jagan	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/18/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-15 are objected to because of the following informalities:

In claims 1 and 8, it is not clear from the claim language what the term 'levels' is referring to in lines 10, e.g., is it referring to the voltage of each of the current signals? Furthermore, in lines 15, "according to the sensed temperature parameter signals" should be deleted since the phrase appears to state that the amplifying circuit amplifies the signal based on the temperature parameter signal, i.e., relies on the temperature parameter signal to amplify the current signal.

In claims 7 and 14, "the absolute direct current signal and" should be deleted from lines 6 since the specification states that the "first predetermined arithmetic operation" is the third term of equation 5 (see page 15, lines 15-20), wherein the third term is not a function of the 'absolute direct current signal' (V1). The 'absolute direct current signal' (V1) is used in the "second predetermined arithmetic operation", which is equation 5 (see page 15, lines 9-11). Equation 5 uses the absolute direct current signal (V1), the sensor signal (Vs), and the first predetermined arithmetic operation.

In claim 15, it is not clear from the claim language what the term 'levels' is referring to in line 9, and "according to the sensed temperature parameter signals" should be deleted from lines 12-13, as explained above with respect to claims 1 and 8.

Claims 2-6 and 9-13 are objected to for being dependent on an objected base claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01.

Claims 1 and 8 each claim an apparatus that carries out an arithmetic operation based on the amplified current signal and the sensor signal, i.e., the apparatus performs the operation to output the corrected sensor signal (Vout). However, the disclosure states that the output of the apparatus (Vout) is obtained from an arithmetic operation (equation 5) that is based on the amplified current signal (V3), the sensor signal (Vs), the outputted direct current signal (V2), and the absolute correction data (V1) (see figure 1, and page 15, lines 2-25).

Therefore, the omitted elements in claims 1 and 8 are the absolute correction signal setting unit that provides the absolute correction data (V1), and the outputted direct current signal (V2) from the slope correction signal setting unit, which are essential elements of the apparatus necessary for correcting the sensor signal.

Claims 2-7 and 9-14 are rejected for being dependent on a rejected base claim.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. As explained above with respect to claims 1 and 8, the omitted steps in claim 15 are

the steps for providing the absolute correction data (V1), and the outputted direct current signal (V2) from the slope correction signal setting unit, which are essential steps necessary for correcting the sensor signal.

Allowable Subject Matter

5. Claims 1-15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and the objections set forth in this Office action.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or suggest the following in combination with the remaining limitations of the claims:

An apparatus for sensing an environmental temperature around a sensor as a temperature parameter signal and correcting a signal from the sensor based on the parameter signal, the apparatus comprising a slope correction signal setting unit configured to output selectively one of a plurality of direct current signals according to the sensed temperature parameter signal (see independent claim 1).

An apparatus for sensing an environmental temperature around a yaw rate sensor as a temperature parameter signal and correcting a signal from the yaw rate sensor based on the parameter signal, the apparatus comprising a slope correction signal setting unit configured to output selectively one of a plurality of direct current signals according to the sensed temperature parameter signal (see independent claim 8).

A method of correcting a sensor signal outputted from a sensor, the method comprising apparatus sensing an environmental temperature around the sensor as a temperature parameter signal, and outputting selectively one of a plurality of direct current signals according to the sensed temperature parameter signal (see independent claim 15).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents disclose a sensor having temperature compensation:

U.S. Patent 4,144,769 to Mayer
U.S. Patent 6,220,094 to Ichinose et al
U.S. Patent 4,467,651 to Peters et al
U.S. Patent 5,297,028 to Ishikawa
U.S. Patent 3,782,205 to Fletcher et al
Japanese Patent 61221613 to Yoshioka et al
Japanese Patent 01041865 to Ariga et al
Japanese Patent 06148231 to Sato et al
Japanese Patent 06265565 to Ichida et al

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 11AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
June 23, 2005

Mirellys Jagan
Patent Examiner
Technology Center 2800